G. R. S. IX-5]

Previous references.

File No. 56-18

1918.

Serial Nos. 74, 75,

(Incl)

Later references.

Incl 56-18 (108, 110, 113, 117, 120, 121, 123) 76, 77 & 79

GENERAL AND REVENUE SECRETARIAT.

Serial Nos. Five

Part B for January 19.

SUBJECT.

Influenza

(1 74) From

The I. A. Resident.

No 314 D/ 16-1-19

From a copy of letter No 406 D/ 13-12-18 from the Govt of Dwia regarding the late Influenza epidemic & requests that the information required therein in respect of the Lingsugur Taluk may be furnished early

(1 79) To, The I. A. Resident Pol No 738 D/ 31-1-19

From the information called for above.

Incl 13/6/19.

W D 1250—GDB—30,000—28-1-19

G. R. S. III—1] 1918-19.

GENERAL AND REVENUE SECRETARIAT.

(Medical)

NOTES.

File No. 578

FILE HEADING.

Influenza.

From

The First Asst Resident.

No. 314. Dated 16.1.19. Received 17.1.19.

Diary No. 937	Enclos. 1. Spare Copies. 2	Serial No. 74.

BRIEF ABSTRACT OF LETTER.

Forwards a copy of letter No. 406 of 4/13.12.18 from the Govt of India regarding the late Influenza epidemic & requests that the information required therein in respect of the Mysore State may be furnished early.

NOTES AND ORDERS.

Submit to Member for perusal.

Send Copies to Senior Surgeon & Sanit. Comr and ask them to report by the 28th Instt.

Offg C.S.B.
16.1.19.

Draft submitted

18/1/19.

Issue today

18.1.19.

NOTES—First Sheet

WD 1232—GPB—20,000—18-11-15

G. R. S. III-2]

9377/9925 9994 2

General and Revenue Secretariat. | Ind File No. 56 of 1919

Serial No. 75

To The Senior Surgeon
The Sany. Comr
No G 4754-5 D 18-1-19
Forwards a copy of letter received from the Govt of India re the late Influenza epidemic & requests that a similar information in the matter may be furnished by the 31st instant.
From The P.A. Resident
No 748 D 27-1-19.
Requests that the report called for, if possible by the 31st instant may be furnished by the 31st instant as the Govt of India have asked for the information by the first week in F.
Sahib. The report called for has not yet been received. A draft D.O. reminder is put up for approval or other orders.
28/1/19

~~The draft approved by the Asstt by~~

No 915/55-68 28-1-19 issued to Surgeon Transl
From The Senior Surgeon
No G 9994 dt B/III D/28-1-19
Submits the report called for
Submitted. The Sany. Comr's report is awaited.

29/1

No note recd by this ev 2 Please issue another Reminder to-morrow

29/1

A.T. ANGH. 23 JAN 1919

NOTE—Contn. sheet.

WD A 1789—GPB—60,000—20-3-18—S.

1067 3

G. R. S. III-2]

General and Revenue Secretariat. | Med File No. 56. of 1918.

Serial No.	
77	Letter no Q.C. 364-2 dated 29.1.19 from the Surg. Comm. forwarding a note on the Influenza epidemic in this state. Subd with a draft forwarding note to the Residency. JKA 30/1/19
78	To The R.A Resident Vide 738 dd 31-1-19 Forwarded the information called for for submn to the Govt of India

NOTE—Contn. sheet.

WD A 1789—GPB—60,000—20-8-19—S.

R.-O. 178 (a)—R. P. B.—11-1918.—1,000

Enc: 1 letter 2 - 2 - Copies

MYSORE RESIDENT'S OFFICE,

Bangalore, 16th January 1919

No. 314.

A copy of the marginally* noted letter, ~~with enclosure,~~ is forwarded to the Chief Secretary to the Govt. of Mysore, with the request that the information referred to therein in respect of the Mysore State may if convenient be communicated to this office as early as possible

*No. 406 dated 4/13th Dec 1918. from the Govt. of India in the Dept. of Education to Local Govts. & Admrs regarding the late influenza Epidemic

Chf

First Assistant Resident.

No. 406.

FROM

THE HON'BLE MR. H. SHARP, C.S.I., C.I.E.,
Offg. Secretary to the Government of India,

To

THE SECRETARY TO THE GOVERNMENT OF MADRAS,
LOCAL AND MUNICIPAL DEPARTMENT.

THE SECRETARY TO THE GOVERNMENT OF BOMBAY,
GENERAL DEPARTMENT.

THE SECRETARY TO THE GOVERNMENT OF BENGAL,
MUNICIPAL (SANITATION) DEPARTMENT.

THE SECRETARY TO THE GOVERNMENT OF THE
UNITED PROVINCES,
SANITATION DEPARTMENT.

THE FINANCIAL SECRETARY TO THE GOVERNMENT OF THE
PUNJAB.

THE SECRETARY TO THE GOVERNMENT OF BURMA,
GENERAL DEPARTMENT.

THE SECRETARY TO THE GOVERNMENT OF BIHAR AND ORISSA,
MUNICIPAL DEPARTMENT.

THE SECOND SECRETARY TO THE CHIEF COMMISSIONER
OF THE CENTRAL PROVINCES.

THE SECOND SECRETARY TO THE CHIEF COMMISSIONER, ASSAM.

THE CHIEF COMMISSIONER OF COORG.

THE HON'BLE THE CHIEF COMMISSIONER AND
AGENT TO THE GOVERNOR-GENERAL,
NORTH-WEST FRONTIER PROVINCE.

THE CHIEF COMMISSIONER OF DELHI.

Delhi, the 4th December 1918.

Department of Education.
Sanitary.

SIR,

In this Department's letter no. 239, dated the 23rd July 1918, certain local Governments were requested to submit a report on the Influenza epidemic which prevailed in many parts of India during the summer of 1918 and their reports have been received by the Government of India. In view of the second and far more severe outbreak of the disease in the autumn of this year, it is now desired to obtain as soon as possible such information as will be of use to the country if there should be at a subsequent time any recrudescence of the disease. The greater number of the local Governments have already, in response to this Department's telegram no. 376, dated the 31st October 1918, submitted brief abstracts of the action taken by the Government or public bodies to cope with the epidemic, and the replies which have been received have since been duly published. What is now desired is a more complete report of the situation upon which the Government of India may be able to ascertain authoritatively the actual circumstances of the epidemic and the measures taken, or recommended, for coping with it. I am accordingly to ask that a detailed report may now be submitted. It is not proposed that the information collected should be limited to information supplied by Government officers and such further information as can be obtained from private practitioners and others should be freely resorted to.

2. The report asked for should, in the first place, contain a brief account of the (1) bacteriological findings of such inquiries as may have been carried out in the laboratories or elsewhere, in each province, and an (4) epidemiological survey of the outbreak describing its origin in the province and the method in which it has spread, its (3) relative intensity at various times in various parts of the province and in town and rural areas, respectively. In discussing the geographical distribution of the disease, attention should be paid also to those areas which have escaped altogether, or suffered but lightly, and any facts that may be forthcoming to explain such immunity should receive attention. There are in the greater part of India no special statistics to indicate the number of persons attacked by the disease or the number of persons

whose deaths are due directly or indirectly to influenza, but the total mortality figures should be compared with the normal figures for the period and the necessary inferences should be set forth. The co-existence of any other disease in epidemic form which might complicate the deductions to be drawn from such figures should of course be noted. In addition to any further detailed statistics that may be found useful, I am to request that for the province at large tables in the form of Statements VI and IV of the annual sanitary report, covering the period under report, may be prepared and submitted with the report.

3. In the second place, it is desirable ~~that we should be able~~ to form an estimate of the case mortality rate of the disease in the various provinces. Statistics for the general population are unlikely to assist much in this direction, as none but the severe cases are usually admitted into hospital; but it is thought that the experience in the jails of each province may be most valuable. The Government of India would be glad if this information could be collected. In the jail returns information as to sex and age incidence should be forthcoming.

4. In the third place, it is requested that information should be given regarding the preventive measures which may have been taken and the degree of success with which they may have been attended. The account of these measures should be accompanied by suggestions for the future and it should in particular be noticed to what extent recourse to preventive measures could have been facilitated if the country had been provided with a more adequate public health staff both in town and country.

5. In ~~the fourth~~ place, I am to ask that a brief account may be provided of the characteristics of the disease as it appeared in the various provinces, its symptoms, complications and sequalæ and any special line of treatment that has been acclaimed as most useful. Any information as to the incidence of the disease among the different grades of society and the probable explanation of the greater incidence amongst the classes that have suffered most would be of value.

6. In view of the fact that inoculation has been utilised in England, South Africa and elsewhere, both for the cure and for the prevention of the disease, the Government of India have made special inquiries from the Research Institutes in this country as regards the possibility of undertaking a widespread recourse to this form of treatment, but the question should be carefully considered in the report and information should be supplied as to the extent to which inoculation may in practice have been carried out and the results attained.

7. As a report of the character above described, in order to be of real value, should be in the hands of the Government of India and their technical advisers at the earliest possible date, I am desired to request that the report should be so prepared as to deal with the information available up to the 30th November 1918 and should be in the hands of the Government of India not later than the 1st of February 1919. It should be understood that it is not the intention of the Government of India to require in every case a decisive opinion on the various points raised and the information which they desire should be such information as it is possible to compile on the data available at the time.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) H. SHARP,

Offg. Secretary to the Government of India.

No. 407.

Copy forwarded to the Foreign and Political Department with a request that if there is no objection similar information may be obtained from the larger Native States.

By order, etc.

J. M. MITRA

Assistant Secretary to the Government of India.

G. M. Press, Simla.—No. 152 E.D.—10-12-18—692—M.D.

G. R. S. VI—G/32]

SUBJECT.....

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.....

Diary No. of letter replied to ..9377.....

GENERAL AND REVENUE SECRETARIAT

( )

, the *191*

Date of issue.....

Signed by.....

Section Med

File No. 56-18

Serial No. 75

No. 1-545-

Rev. R.C. 11

To

(1) The Senior Surgeon

(2) " Surg. Comm.

Sir,

I am directed to forward a copy of letter No. 406 dated 4/13 Dec. 1918 from the Govt. of India, Dept of Edn, regarding the late Influenza epidemic, received from the Residency, and to request that available information in the matter may be furnished by the 28th Instant.

I have &c,

Asst

Chief Sec.

8

R. O. 2.—R. P. B.—11-1918.—1,000.

DIARY

No. 748

FROM

MAJOR E. H. S. JAMES,
FIRST ASSISTANT TO THE RESIDENT IN MYSORE.

To

The Chief Secretary to the Government of
His Highness the Maharaja of Mysore

Dated Bangalore, 27th January 1919.

SIR,

I am directed to invite a reference to Memorandum No. 314 dated the 16th January 1919, regarding a report on the Influenza Epidemic and to request that as the Government of India have asked for the information by the 1st proximo, the report in question may if possible be kindly furnished by the 31st instant.

I have the honour to be,
Sir,
Your most obedient servant,

for FIRST ASSISTANT RESIDENT.

G. R. S. VI—G/32]

9

SUBJECT.....

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Diary No. of letter replied to.....

Section

File No.

Serial No.

GENERAL AND REVENUE SECRETARIAT,

( )

, *the* 191 .

D. O. No.

Date of issue 27-1-19

Signed by [illegible]

To

Sir,

I am desired to invite
~~your personal attention to this~~ kind notice

office letter No G 14754-5 dated

calling for ~~5 Lit G 75~~ the 18th Jan 1919

~~information regarding~~ the recent influenza epidemic

~~and to request you to be so good~~ for the information of the Govt of India

~~as to furnish the information~~ and to request you to be so good as to give your personal attention

~~Called for immediately~~ to this matter and furnish the report immediately

is wanted by the Resident

before the 31st instant.

I am, Sir,

Your obedient Servant,

over.

To be kindly sent by C. O. Post please make two copies

To The Samy Comm.

The Senior Surgeon

[illegible]

28/1/19

OFFICE OF THE SENIOR SURGEON,
MYSORE GOVT.,

Bangalore, 28-1- 1919

D. O. No. Dy. B. III Ee. 3.

Immediate

Dear Sir,

In reply to your D.O. letter No.G.15755-6, ofeven date, just received, I enclose my official report on the late influenza epidemic, called for in your letter No.G.14754-5,Med.56-18-75, dated 18th January 1918, to be submitted by the 28th instant.

Yours sincerely

T. E. Jayarama Iyer Esq. BA,BL,
Under Secretary to Government,
General & Revenue Department,
Bangalore.

No. G. Dis B. 111
Encls. two

Office of the Senior Surgeon, Mysore Govt.,

Dated, Bangalore, 28th January 191 9

Memorable

9999

From

Rajakarya Pravina

Rao Bahadur T. V. Arumugum Mudaliar, Esq., M. B., C. M.,

Senior Surgeon with the Government of

H. H. the Maharaja of Mysore, Bangalore.

25 JAN 1919

To

The Chief Secretary to the Government of

H. H. the Maharaja of Mysore,

~~Dept~~., Bangalore.

Sir,

With reference to your letter No. 14754-5-Med. 56-18-75, dated 18th January 1919, requesting me to furnish available information required by the Government of India, regarding the late influenza epidemic, I have the honor to submit the following report.

Duration of the epidemic. The wave of influenza may be said to have been felt in the cities of Bangalore and Mysore during the latter part of September 1918 and by the first week of October the disease assumed proportions sufficiently large to attract the attention of the authorities for the adoption of special measures. By the middle of October, the disease spread to all parts of the State and increased in intensity as the month advanced. The beginning of November saw signs of abatement of the disease in many places and by the middle of the month, the daily attendance of influenza patients at the several medical institutions in the State, which had ranged from 150 to 300 or 400 in the middle of October, fell down to 5 to 15 and by the end of November the disease may be said to have almost completely disappeared.

Statistics. The following table shows the number of ~~infln~~ influenza cases that received treatment from the State, Local Fund, Municipal and aided medical institutions in the several

Dis

From

The Senior Surgeon,

Mysore Govt., Bangalore.

To

The Secretary

to the Govt. of Mysore,

Deptt.,

Bangalore.

Dated 28-1917.

No. G. 275 B III

Encls. Two

Subject.

Submits information required by the Government of India regarding the late influenza epidemic.

districts from the commencement to the end of November 1918, and the number of deaths during the same period, as reported by the local municipal or revenue authorities.

District.	Total population, as per 1911 Census.	Total cases treated by medical institutions.	Total deaths reported by local revenue authorities.	Percentage of deaths to total population.
Bangalore City.	88,651	22,542	2,077	2.34
Do. District	759,522	12,890	10,129	1.33
Mysore City	71,306	25,892	1,293	1.81
Do. District	12,70765	45,071	23,841	1.87
Kolar do.	7,31518	20,835	14,020	1.92
Tumkur do.	7,35346	37,825	24,399	3.32
Hassan do.	5,80200	58,243	5,448	0.95
Shimoga do.	5,16716	42,641	22,754	4.40
Kadur do.	3,38457	38,198	4,990	1.47
Chitaldrug do.	5,64243	17,311	18,793	3.33

It has to be noted here that the figures in column 3 above; merely represent the number of cases attended to at the several public medical institutions and not the total number of attacks which, it is obviously not possible to ascertain even to any degree of approximation.

Statistics from the Jails & Asylum. The subjoined statement gives the figures relating to the Lunatic Asylum, Bangalore and the Central Jail, Bangalore and the Mysore District Jail.

Institution.	Population	Attacks	Deaths.	Percentage to total population, of	
				Attacks	Deaths.
Lunatic Asylum	200	12	2	6	1
Central Jail	750	292	20	38.93	2.66
Mysore Jail	177	147	3	83.5	1.69

No precautions beyond the ordinary ones were adopted in these institutions, viz., isolation of patients, prevention of overcrowding and keeping the inmates, as far as possible, always in a free atmosphere. The asylum buildings being not well ventilated, the lunatics were made to sleep in the open verahdah attached to their respective cells. The above figures go a long way to show that with sanitary surroundings the mortality could be reduced to a minimum.

Characteristic symptoms. The characteristic symptoms of the disease as observed in different parts of the State were

more or less the same. The disease showed itself in four types

First variety. Bronchial catarrh, with slight fever, pain in the limbs, severe frontal headache, excruciating pain in the back. Average duration, 1 to 3 days.

Second variety. (A) Broncho-pneumonia. Disease ushered in with rigor and pain in the back, frontal headache, temparature rising to 102 or 103 and keeping above normal for 4 or 5 days and attended with harassing cough and mucoid expectoration.

(B) Pneumonia. Ushered in the same way as the last variety, with higher temperature- 104 to 105, cutting pain in the back and frontal headache, very severe pain in the limbs, rusty, blood-stained expectoration on the 4th or 5th day of the onset; the disease running its course for 9 to 11 days.

Last variety. Maningial type. This variety was ushered in with very high temperature and severe occipital headache, (pain in the back of the head) marked, from the very commencement, with cerebral symptoms.

Curative methods No special line of treatment or treatment with any specific remedy was adopted. As all medical Officers and subordinates were expected to deal with each case according to its symptoms and on general principles, it was considered unnecessary to issue any departmental instructions regarding the treatment of cases. When, however, several so called "specifics" came to be advertised by different agencies and demands were made by the local executive agencies charged with the adoption of measures to deal with the epidemic for specific remedies in the form of pills, etc., a circular had to be issued for the information of the authorities concerned, (copy enclosed) to the effect that there was no specific for influenza and giving general directions regarding the treatment and care of influenza cases. In spite of the arrangements made for the distribution of prepared mixtures into the interior of villages, a demand for a medicine that could be prepared by a

lay person, from ingredients that could be easily procured in every village, was felt, and to meet the same, a decoction of Ajwan, pepper and garlic, was recommended. A small leaflet in Kannada, briefly describing the symptoms of the different types of the disease, giving short hints on the treatment and care of patients, and the preparation and use of the above/said decodtion, was got printed and circulated broadcast in the State. A copy of this leaflet is also enclosed.

I have the honor to be,

Sir,

Your most obedient servant,

D. Ramachandra

Senior Surgeon.

15

Immediate. 29/1/19

OFFICE OF THE SENIOR SURGEON.
MYSORE GOVT.,

Bangalore, 29th Jany. 1919.

D. O. No. Dis. B. 111.

1 JAN 19

Dear Sir,

I request that the following 'Note' may kindly be inserted below the paragraph headed "Characteristic symptoms" in the Report on Influenza submitted to Government yesterday with my D.O. letter No.B.Dis.111, to your address:-

"Note. Of pregnant women who had influenza, many aborted and many died after abortion."

Yours sincerely,

T. E. Jayaram Iyer Esq., BA, BL,
Under Secretary to Government,
Bangalore.

WD 02785—GPB— 79,000—25-2-17—S.

56773 191

From

The Mig. Sanyl. Commissioner in Mysore

To

The Chief Secretary to Govt.

Dated 29.

Despatched January 1919.

Received

General No. G. C 364.2

No.

Enclosure No. 3

Ch Secy 29.1.19

Submitting a note on the recent Influenza Epidemic in the State.

DMI 30/1/19

OHP 30 JAN 19[illegible]

16

No. G. C. 364-2
Enc. 3.

Office of the Sanitary Commissioner
with the Govt. of Mysore,

Bangalore, 29. Jan. 1919.

10067

From

A. K. Pani Esq., D. P. H., &c.,
Offg. Sanitary Commissioner in Mysore,
Bangalore.

Bud
50-18
77

To

C. S. Balasundaram Iyer Esq., B. A.,
Chief Secretary to Government.

Sir,

As desired in your letter No. G. 14754-5/Med. 56-18-75 dated the 18th. January 1919, I have the honor to submit herewith a note on the recent influenza epidemic in the State.

I have the honor to be,

Sir,

Your most obedient servant,

A. K. Pani

Offg. Sanitary Commissioner

Note on the prevalence of Influenza in the Mysore State.

Epidemiological survey.

The epidemic started in the Mysore State at the commencement of October 1918 and lasted until about the end of November 1918. It was characterised by an almost simultaneous prevalence in all parts of the State and, unlike plague and cholera, there was not a definitely ascertainable interval to account for the transmission and spread of the disease from one place to another or from one locality in the same place to another. It was thus out of question to think of segregating early cases as a means of preventing the spread of the disease. Any attempt - if it had been made - having for its object the compulsory notification of cases and the isolation of the sick would certainly have resulted in the repetition of the experience of the early epidemics of plague. It would have hindered, rather than furthered, the relief measures and, in consequence, enhanced the spread of the disease and the mortality.

Recourse was had in the Central Jail - but with small success - to the segregation of the sick and to the careful and systematic disinfection of all discharges and sputum of patients.

2. The occurrence of the pandemic cannot be connected to any known specific cause - meteorological or otherwise. But it is noteworthy that the disease synchronised with an acute distress caused by the shortage of food supplies in the market and the great rise in the prices of food grains. To what extent this deficiency in food supplies contributed towards the spread of the disease it is not possible to say but it cannot be denied that its incidence was heaviest among the poorer classes and in crowded localities.

18

3. According to the figures furnished by the Deputy Commissioners, the mortality from influenza in the State amounted to 1,27,654 equivalent to 22.37 per mille of population for the short period of about two months during which the disease prevailed in an epidemic form. Judged by the recorded statistics the epidemic exhibited three distinct phases - (1) an initial mild type, that lasted during the first three weeks, with little or no complications (2) a marked development of complications thereafter, resulting in a high total mortality and (3) a sudden decline in the number of deaths.

A statement showing the mortality according to districts is appended. In proportion to population, Hassan district suffered least, the mortality being 9.38 per mille for the two months. In the Bangalore and Kadur districts also the incidence of the disease appears to have been less heavy than in other districts. The districts of Tumkur and Chitaldrug returned a mortality of slightly over 33 per mille which very much exceeded the State average.. No specific reasons can be adduced for the variations in the incidence in the several districts.

No statistics have been furnished in regard to the number of attacks. But it must be remembered that unlike other diseases, in the case of which attacks are usually furnished viz. plague and cholera, influenza was not endemic in nature, Its prevalence was so widespread and practically so simultaneous in all places that nothing short of an actual census of the sick taken weekly in every affected area could have been of any use in determining the actual number of attacks. A census taken in the Bangalore City on the 6th. and 7th. October 1918 revealed that the number ailing in the city on those dates was about 10,000. The city population according to the last census was 88,651.

~~Comparison of the total mortality figures~~ with

19

Comparison of the total mortality figures with the normal figures for the period.

4. Returns shewing the registered total mortality from all causes during the months of October and November 1918 have not been received yet from all the districts. For purposes of comparison of the total mortality with the normal figures for the influenza period, therefore, the recorded figures for the Bangalore City are assumed to be typical of the whole State.

Among 40,000 persons that, on a rough calculation, were laid up with influenza in the city, 2074 deaths occurred equivalent to 2.3 per cent of the population. The average mean of the total mortality registered during the preceding 5 years was 311 for October and 320 for November. As against these figures the total number of deaths recorded in October 1918 was 2214 and in November 618. Thus for the two months together the total mortality was 4½ times that of the quinquennial average for the preceding 5 years for the same period.

Sex and age incidence.

According to agesthe highest mortality was recorded, among christians between 10 & 15 years, among mohamedans 15 & 20 years and among Hindus 20 & 25 years. Amongst females of all classes the highest number of deaths occurred at the age-period 10 to 15.

The total female deaths,preponderated, 931 out of 2074 deaths in the Bangalore City having been among males and 1143 among females.

Characteristics of the disease: symptoms & sequalea.

The type of the disease, the symptoms and the severity varied with individual constitution, age and, to some extent, according to the locality. In Arsikere (Hassan district) the disease was attended with diarrhoea and on the Kolar Gold Fields with vomitting also. The

respiratory

respiratory organs were chiefly affected and in many cases owing to mixed infection pneumonia developed. No specific treatment applicable to all cases was possible and it varied according to the symptoms presented in individual cases. The treatment was purely symptomatic in the isolation and the temporary hospitals provided for the occasion.

Bacteriological findings.

7. A doubt having been expressed that the pneumonia supervening the attack of the disease might be some form of pneumonic plague, the necessary investigations were carried out in the Public Health Institute attached to the State to find out if this was so. The results were negative. The very fact that the disease largely prevailed in the Central Jail notwithstanding that every prisoner is protected against plague by inoculation proves that the disease was unconnected with plague.

Incidence among different communities.

8. Classified according to communities, - amongst the Christians in the Bangalore City there were 112 deaths (47 males and 65 females); amongst mohamedans 273 deaths (114 males and 159 females) and amongst the Hindus 1,689 deaths (770 males and 919 females). In proportion to population, the percentage of deaths was 2.7 among Christians, 2.08 among Mohamedans and 1.09 among Hindus.

It is difficult to assign reasons for this variation in the death rates from influenza among the different communities. But, speaking broadly, the higher death rate among females appears significant and may mean that the insanitary housing conditions may have had an effect on the course of the disease. Frequency of child bearing and the prolonged nursing which is extremely common among Indian women probably also rendered them more easy victims to the disease. From information gathered it appears

that

that women in different stages of pregnancy that were attacked with the disease invariably succumbed to it. This is a matter for further investigation after collecting accurate data from Lady Medical practitioners.

Jail Statistics.

9. A detailed statement showing particulars of the incidence of the disease in the Central Jail, Bangalore, is appended. Apart from the value of the figures from a statistical point of view they do not appear to lead to any definite inferences being drawn as to the conditions that favor the prevalence of and mortality from the disease. The sanitary environment, the approved diet and the special care taken of the patients did not prevent the occurrence of the epidemic in the Jail in common with the rest of the City.

Preventive and relief measures.

10. The measures adopted in the State consisted of (a) the distribution of leaflets concerning the disease and its prevention (b) medical relief, under which head is also included the assistance rendered by local 'pandits' and 'hakims' (c) distribution of suitable liquid nourishment to the sick (d) supply of food grains at cost price and, in the case of the very poor gratis for a limited period. The progress of relief measures was greatly furthered by the institution in each local area of special committees, of which the most influential of the citizens were members and the Chief local officer as the Head. This close association, for the first time, of volunteer workers with officials in affording relief to the sick and the needy was an outstanding feature of the relief methods employed. With the usual sympathy, His Highness the Maharaja realising the suffering of his subjects all over the State issued orders so that no expenditure might be stinted and no pains spared to render the relief measures as efficient as possible. Government

were

were pleased to sanction liberal grants-in-aid for expenditure by local bodies. A free hand was given in the matter of employing whatever temporary staff was needed for the occasion.

On the recommendation of the Sanitary Commissioner, the use of Thymol, both as a curative and as a preventive, was approved by Government. The drug was dissolved in rectified spirit so as to contain ½ grain per each adult dose of 5 drops and small bottles of the solution freely distributed to the people. It was acclaimed by the public as very efficacious, although the majority of the medical men entertained doubts as to the suitability of the drug and its efficacy in such small doses.

A special open-air hospital on a large scale was opened under canvas in the Bangalore City with accommodation enough for 75 in-patients. The total out-patients attendance was 1,062 or an average of 32.2 per day. The in-patients numbered 198, the average being 6.1 per day. Out of this number 144 or 72 per cent were discharged cured. 54 or 27 per cent died. Twenty three of these deaths occurred among patients that were brought to the hospital at a very advanced stage of illness..

Suggestions for future policy.

11. As to the lines of future policy indicated by the experience of the recent epidemic, the most important matters requiring attention seem to be the development of local initiative in matters pertaining to epidemic prevention, the constitution of permanent committees of the kind that proved so useful recently, a relaxation of the routine procedure to the extent of giving the local authority a free hand in employing temporary establishments within the limits of the budget provision and the allotment of liberal grants-in-aid towards the creation of facilities for taking prompt action on the outbreak of epidemics. It does not appear that, so far as influenza

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is concerned, recourse to preventive measures could have been facilitated had a more adequate public health staff been provided both in towns and in rural areas.

12. It must also be remembered that an outstanding feature of the work connected with the recent epidemic was the confiding attitude of the people and their readiness to accept relief in whatever form it could be made available by Government. The protective qualities of inoculation against plague are becoming more widely recognised by the people and with such evidence as was forthcoming recently of their ready acquiescence in the measures initiated by Government, there is abundant reason to hope that inoculation against influenza will find equal, if not more, popular favor. Special inoculation and the dissemination of simple leaflet instructions concerning this disease must in future take a very high place among the measures to be adopted for preventing a recrudescence of the disease.

Sanitary Commr's
Office, Bangalore,
29th. Jan. 1919.

Offg. Sanitary Commissioner

Statement showing the mortality from Influenza in the Mysore state during 1918.

District.	No. of deaths.	Ratio per mills of population.
Mysore City	1293	18.13
Bangalore City	2074	23.42
Bangalore District,	10129	13.33
Mysore District.	23841	18.76
Tumkur District,	24399	33.18
Kolar District,	14020	18.22
Shimoga District.	22754	44.03
Hassan District	5448	9.38
Chitaldrug District.	18703	33.12
Kadur District,	4990	14.74
	127651	22.37

Sanitary Commissioner's
Office, Bangalore.
Dated 28th January 1919.

Offg. Sanitary Commissioner,

Statement showing the particulars regarding t
Commencing from 6th octob

Serial Number.	classification according to ages					classification according to sex											
	Ages in years	Total No. of cases	Deaths	Average per mille of average strength		Males	Females	Deaths		Average per mille of average strength				Average per mille of average sex of population			
				Attacks	Deaths					Attacks		Deaths		Attacks		Deaths	
								Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	10-15 years	3	"	4·07		282	10	19	1	383·15	13·58	65·68	-	400·57	312·50	26·99	1
2	16-20 "	30	1	40·77	1·35												
3	21-25 "	39	3	52·97	4·07												
4	26-30 "	73	1	99·10	1·35												
5	31-35 "	56	6	76·08	8·15												
6	36-40 "	50	1	67·90	1·35												
7	41-45 "	23	4	31·25	5·43												
8	46-50 "	12	2	16·30	2·71												
9	51-55 "	3	"	4·07													
10	56-60 "	3	1	4·07	1·35												

Influenza Epidemic in the Bangalore Central Jail 1918 till the end of 9th November 1918.

Classification according to Complications

Serial numbers	Complicated with	No. of Cases	Deaths	Average per mille of total attacks		Remarks
				attacks	Deaths	
1	Meningitis	32	10	109.58	34.24	The epidemic was somewhat mild at the Commencement and about a fortnight after became very severe with complications and greater casualties. At the latter part, cases were uncomplicated not one case proved fatal among the females in the Jail.
2	Pneumonia	46	6	157.53	2.54	
3	Pneumonia & meningitis	21	3	71.91	1.27	
4	Hemiplegia	1	-	3.42	-	
5	Haemorrhage from ear & nose	11	-	37.67	-	As a preventive measure the early cases showing signs of cough, sneezing or any rise of temperature were segregated. Disinfectants such as cyllin and phenyle etc were freely used to receive all discharges and sputum. Thymol solution (½ gr. to 10 oz) used both as a mouth wash and internal medication.
6	Gastric symptoms as vomiting & diarrhoea	94	-	16.95	-	
7	Temporary Glycosuria	1	-	3.42	-	As the epidemic appeared suddenly and was very virulent only for a short period and as there was paucity for medical men no records of any special method of treating individual cases was possible. It was mainly symptomatic as Diaphoretics, stimulant expectorants, stimulants when necessary, Bran poultices, Turpentine stupes etc in Pneumonic cases Hyocyamus and bromides in Cerebral cases, Salol and other intestinal antiseptics in Gastric complications and adrenaline in Haemorrhagic cases. All the persons are inoculated against plague.
8	Uncomplicated Cases	86	-	294.52	-	
		292	19			

Sd. A. K. Pani
Offg Sanitary commr in Mysore.
Chief Secretary to Government

Copy."

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G. R. S. VI—G/32]

SUBJECT Note on the recent Influenza epidemic in the State

Diary No. of letter replied to 10067

GENERAL AND REVENUE SECRETARIAT,
( )
the 191

Date of issue 31st January 1919

Signed by T. S. Balasundaram
Typed

Section Med
File No. 56-18
Serial No. 79

No. Pol. 738
Re. Reports

To

The First Asst. to the Hon'ble Resident
in Mysore

Sir,

With reference to your memo no 314 dated 16.1.19 forwarding for[illegible] of India circular no 406 dept of Com/Lany dated 4th Dec 1918 I am directed to forward herewith ~~for the information of Govt~~ Copies of reports on the Influenza epidemic in Mysore received from ~~Letter no D.S. 111 D 28.1.19~~ in his letter of the Senior Surgeon & the Lany. Comr. with his Letter no G.C. 364-2 D 29.1.19.

~~Yours obedt servt~~

over.

I have the
D.M.
30/1
for Chief Secy to Govt.